Abstract

Method of evaluating a physical quantity representative of an interaction between a wave and an obstacle

The invention relates to the modelling of the interactions between an incident wave and an obstacle, in particular in the area of nondestructive testing. According to the invention, the surface of the obstacle is meshed and at least one source (S_i) is allocated to each surface element (dS_i). Boundary conditions are then calculated at each mesh cell of the obstacle and source values are deduced therefrom. On the basis of an interaction matrix and of these source values, a physical quantity representative of the interaction between the wave and the obstacle is estimated at any point of space.

(Figure 1B)